

What is claimed is:

1. A system for electronic patient care, the system comprising:
 - a network;
 - a facility gateway configured to provide a publish-subscribe service for applications executed within the facility gateway;
 - a device gateway application configured for execution by the facility gateway, the device gateway application is configured to communicate via the network by providing a web service, the device gateway application configured to publish a medical device event topic for each of a plurality of medical device types;
 - a medical device of a first type of the plurality of medical device types in operative communication with the network, wherein the medical device is configured to communicate with the device gateway application using the web service and to generate a raw event;
 - a device application configured for execution on the facility gateway and configured to subscribe to only the medical device event topic associated with the first type of medical device, the device application configured to receive the raw event from the subscription and process the raw event into an interpreted event, the device application configured to publish the interpreted event.
2. A system for electronic patient care, the system comprising:
 - a network;
 - a facility gateway configured to provide a publish-subscribe service;
 - a device gateway application configured for execution by the facility gateway, the device gateway application is configured to communicate via the network by providing a web service, wherein the device gateway application publishes a plurality of medical device event topics;
 - a plurality of medical device types in operative communication with the network, wherein each of the medical device types is configured to communicate with the device gateway application using the web service and to generate raw events using a web method of the web service and;
 - a plurality of device applications configured for execution on the facility gateway, wherein each device application of the plurality of device applications is configured to: subscribe to one of the plurality of medical device event topics, and receive the raw events published to that medical

device event topic from the subscription, wherein each device application is configured to process the raw events into interpreted events and publish the interpreted events to a topic via the publish-subscribe service, the raw events received from the subscription of each device application being associated with a specific medical device type of the plurality of medical device types.

3. A system for electronic patient care, the system comprising:

- a network;

- a facility gateway configured to provide object persistence;

- a device gateway application configured for execution by the facility gateway, the device gateway application is configured to communicate via the network by providing a web service, the device gateway application configured to publish a plurality of medical device event topics;[[and]]

- a plurality medical devices of at least a first type and a second type in operative communication with the network, wherein the plurality of medical devices are configured to communicate raw events with the device gateway application using the web service;

- a first device application configured for execution on the facility gateway and configured to subscribe to a first medical device event topic associated with the first type of medical device, the first device application configured to receive the raw events communicated from medical devices of the first type from the subscription and process the raw events into first interpreted events, the first device application configured to publish the first interpreted events; and

- a second device application configured for execution on the facility gateway and configured to subscribe to a second medical device event topic associated with the second type of medical device, the second device application configured to receive the raw events communicated from medical devices of the second type from the subscription and process the raw events into second interpreted events, the second device application configured to publish the second interpreted events.

4. A system for electronic patient care, the system comprising:

- a network;

- a facility gateway configured to provide a publish-subscribe service;

- a device gateway application configured for execution by the facility gateway, the device gateway application is configured to communicate via the network by providing a web service;

a plurality of device applications each configured for execution on the facility gateway, wherein each device application is configured to process a raw event into an interpreted event for a single type of medical device and retransmit the interpreted event via the publish-subscribe service; and

a plurality of medical devices in operative communication with the network, wherein each of the plurality of medical devices is configured to communicate with a respective one of the plurality of device applications and to generate raw events.

5. A system for electronic patient care, the system comprising:

a network;

a facility gateway configured to provide object persistence;

a device gateway application configured for execution by the facility gateway, the device gateway application is configured to provide publish-subscribe data connections;

a plurality of medical device applications each configured to provide publish-subscribe data connections, wherein each medical device application is configured to process a raw event into an interpreted event for a single type of medical device and retransmit the interpreted event, wherein the device gateway application and the plurality of medical devices applications communicate amongst each other using publish-subscribe messages; and

a plurality of medical devices in operative communication with the network, wherein the medical devices are configured to communicate with the device gateway application using a web service and to generate raw events.

6. A system for electronic patient care, the system comprising:

a network;

a facility gateway configured to provide a publish-subscribe service for applications executed within the facility gateway for communication amongst the applications;

a device gateway application configured for execution by the facility gateway, the device gateway application is configured to communicate via the network by providing a web service;

a medical device in operative communication with the network; and

a publish-subscribe engine configured to provide the publish-subscribe service for communication between a plurality of applications including the device gateway application, the plurality of applications being executed within the facility gateway,

wherein:

a device application subscribes to a registered topic using the publish-subscribe engine, the registered topic being associated with a particular type of medical device to which the medical device belongs,

the device application receives an event stream of the registered topic from the publish-subscribe engine,

the event stream includes a plurality of raw medical device events from the medical device, and

when the device application receives a raw medical device event, the device application processes the raw medical device event into an interpreted event and publishes the interpreted.